

CLAIMS

1. A process for forming a 3D woven PI shaped cross-section preform having a first and second foot portions and first and second upstanding leg portions for use in a structure having at least one curved portion of a specific length, the process comprising the steps of:

cutting the treads parallel to the direction of curvature into over a length equal to the length, such that the cuts in each thread are spaced from the cuts in the adjacent treads;

stretching the portions of the preform requiring curvature.

2. The process as set forth in claim 1 comprising the step of forming the curvature in the preform.

3. The process as set forth in claim 2 including the step of impregnating the preform prior to the step of cutting the treads parallel to the direction of curvature into over a length equal to the length, such that the cuts in each thread are spaced from the cuts in the adjacent treads.

4. The process as set forth in claim 3 wherein the step of stretching the portions of the preform requiring curvature are accomplished by forming a sine-wave pattern in the portions of the preform requiring curvature.

5. The process as set forth in claim 1, or 2, or 3, or 4, wherein prior to the step of cutting the treads parallel to the direction of curvature into over a length equal to the length, such that the cuts in each thread are spaced from the cuts in the adjacent treads, the step of folding the first and second upstanding leg portions over the first and second bottom foot portions.